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09/758,143

01/12/2001

Kazunari Akaogi

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03/24/2004

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EXAMINER

WU, JINGGE

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 03/24/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,143

Applicant(s)

AKAOGI, KAZUNARI

Examiner

Jingge Wu

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Page 3 of the specification is missing. Correction is required.

Drawings

2. Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by JP09307901 A to Yamadadera.

As to claim 1, Yamadadera discloses a data quantizing device for quantizing orthogonal transformed coefficients (DCT coefficients) by using a quantizing table (102), comprising:

a comparing unit (103) for deciding whether or not quantized coefficients will be '0' by comparing the coefficients with corresponding coefficients in the quantizing table (102) (0014-0019); and

a control unit (104 and 105) for controlling so that only the orthogonal transformed coefficients with the quantized coefficients of not '0' may be quantized (fig. 2, 0017-0019, and 0026).

As to claim 14, Yamadadera discloses a data compression device (fig. 1) and other limitations are addressed with regard to claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-11, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamadadera in view of US 5396291 to Sanpei.

As to claims 2 and 3, Yamadadera teaches deciding which coefficients will be '0', i.e., less than $\text{mix}0.5$, and outputting the result of comparison as bit '0' (0017-0019) but does not explicitly mention using shifter to compare the coefficients which is well known in the art.

Sanpei, in an analogous environment, teaches using shifters rightly for the comparing the coefficients with quantizing table (fig. 6 and 11, col. 4 line 48+, col. 5 lines 41-54, note right shift is upper bit side).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the shift circuit of Sanpei in the device of Yamadadera in

order to simplify the structure of the device and increase the speed of the image processing (Sanpei, col. 5 lines 55-61).

As to claim 4, Yamadadera further discloses a memory (102 and 108), read control means (ST 205 and 207), and a quantizer (107 and 109) but not explicitly mention register for storing decided results of comparison indication.

Examiner takes Official Notice that using a register to storing the comparing result is notoriously well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a register in the device of Yamadadera in order to simplify the structure of the device, and reduce the cost of the image processing.

As to claim 5, Yamadadera further discloses only the coefficients of not '0' is quantized by the quantizer (108) (0017-0019) and other limitations are addressed with regard to claims 2 and 4.

As to claim 6, the limitations are addressed with regard to claim 5.

As to claim 7, the limitations are addressed with regard to claim 2.

As to claim 8, the limitations are addressed with regard to claim 4.

As to claim 9, Yamadadera further discloses quantizer (108 and 109) for quantizing only the orthogonal coefficients of not '0' (0017-0019), and all-0 detect circuit (103) and a selector (104 and 105) outputs the coefficients not '0' otherwise '0' (fig. 1, 0017-0019).

As to claim 10, the limitations are addressed with regard to claim 4.

As to claim 11, Yamadadera further discloses reading coefficients (ST 204, using address is inherent), other limitations are addressed with regard to claim 4.

As to claims 15-16, the limitations are addressed with regard to claims 2-9.

7. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamadadera and Sanpei, further in view of US 4802232 to Altes.

As to claims 12-13, Yamadadera does not mention '0' run-length.

Altes, in an analogous environment, teaches using shift register (20) to hold binary comparison results '0' and '1' and '0' run-length (fig. 1, col. 1 line 66-col. 2 line 49, col. 6 lines 63-68, binary sequence pattern of logic '0').

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a register of the Altes in the device of Ymadadera in order to simplify the structure of the device, and reduce the cost of the image processing (Altes, col. 1 lines 16-48).

Contact Information

8. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu
Primary Patent Examiner

